IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Kenneth L. Levy

Application No.: 10/602,549

Filed: June 23, 2003

For: Embedded Data Windows in Audio
        Sequences and Video Frames

Examiner: Jordany Nunez

Date: April 16, 2009

Art Unit: 2175

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VIA ELECTRONIC FILING

REPLY BRIEF

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Sir:

Appellant respectfully requests the Board of Patent Appeals and Interferences (hereafter the "Board") to *reverse* the outstanding final rejection of the pending claims.

This Reply Brief is responsive to the Examiner's Answer mailed February 20, 2009 ("Examiner's Answer").

We respectfully refer the Board to our Appeal Brief where additional comments can be found.

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GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 1-16, 23, 25, 27-30, 33 and 35-40 stand finally rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,950,532 B1 (hereafter referred to as "the Schuman patent" or simply as "Schuman").

REPLY TO EXAMINER'S ANSWER

Rejections under U.S.C. 102(b) over Schuman

<u>Claim 40</u>

The Examiner's Answer continues a misinterpretation of Schuman. See, e.g., the Examiner's Answer, page 10, paragraph 7.

In particular, it interprets Schuman's discussion of "spacing" (see Schuman's Col. 6, lines 16-24) as "averaging". This is not an interpretation that one of ordinary skill in the art would make for at least the following two reasons.

First, spacing of image elements does not provide any disclosure of <u>detecting</u> auxiliary data <u>from</u> data representing <u>averaged</u> content portions, as recited in claim 40.

Second, Schuman's reason for his "spacing" is to provide so-called moiré patterns in a recorded image. *See* Schuman at Col. 6, lines 21-24. This stated reasoning cuts against the interpretation in Examiner's Answer.

Indeed, the Examiner's Answer reads too much into the Schuman reference.

The final rejection of claim 40 should be reversed since it does <u>not</u> include each and every limitation of claim 40; namely, it does not include at least "averaging" a plurality of content portions, and detecting from data representing "averaged" content portions.

Claim 16

Schuman does not anticipate claim 16 because it does not include – either expressly or inherently – at least <u>averaging</u> a plurality of the video frames including the first and second frames, wherein the averaging improves the signal to noise ratio of the identification data to video content.

The Examiner's Answer overstates Schuman and understates the features of claim 16. See, e.g., page 11, lines 9-13 ("*Schuman teaches that the number of frames which do not contain marks as well as the number of frames which do contain marks are manipulated so that on average, a the [sic] human eye many not perceive the marks, but a video recording device does.*").

For example, Schuman does not describe an affirmative act of averaging to improve a signal to noise ratio. To be sure, such features are not included in Schuman.

We respectfully request that the final rejection of claim 16 be reversed since Schuman fails to disclose each and every feature in claim 16.

Claim 33

Schuman does not anticipate claim 33 because it does not include – either expressly or inherently – at least a <u>detector averaging</u> a plurality of the video frames so that the provided data becomes consciously perceptible.

The Examiner's Answer discusses a disruption effect due to temporal expansion. See the Examiner's Answer, page 11, lines 8-10. This statement is somehow interpreted to read on a detector which affirmatively averages a plurality of video frames so that provided data becomes consciously perceptible.

But Schuman does <u>not</u> provide any disclosure of a detector which averages content.

The final rejection of claim 33 should be reversed since it does not include each and every limitation of claim 33; namely, it does not include a detector averaging a plurality of the video frames so that the provided data becomes consciously perceptible.

Claim 1 (and dependent claims 4, 6-11 and 13-15)

Schuman does not anticipate claim 1 because it does not include – either expressly or inherently – at least *embedding identification data **in** a first video frame* prior to distribution or projection of the video, and *embedding the identification data **in** the second video* frame prior to distribution or projection of the content, in combination with other features of claim 1.

The Examiner's Answer shifts its positioning from the final Office Action. See the Examiner's Answer, page 13, lines 1-11 *vs.* the final Office Action, pages 2-3. The Examiner's Answer now cites to Schuman at Col. 6, lines 14-24 and 40-43, and Col. 16, lines 8-15. These passages are reproduced below for the Board's convenience.

> *Yet another method for generating a disruption effect includes inserting spaced marks into the generated image that are spaced so as to coincide with the spacing of the image elements on the image sensing devices optical sensors. When the spacing is some percentage off from the image elements spacing, interference patterns, sometimes known as moire patterns, may be produced in the recorded image. An image element may include a single pixel, a group of pixels or an image frame. A generated image may include any modulated image generated by any IGD including a projector, a projector lamp, or a spot light. [Col. 6, lines 6-24]*
>
> ....
>
> *The disruption content may become visible when played after being processed by an IRD due to temporal expansion facilitated by timing differences between the IRD and IGD. [Col. 6, lines 40-43]*
>
> ....
>
> *FIG. 20 is a diagram of an aspect of the present invention showing insertion of disruption text on an image. A sequence of disruption frames 2000 may have character disruption text inserted in the frames per a pattern designed to cause disruptive effects. The frames may be projected through film 2020 containing content. A first resultant image 2030 is what an IRD might detect while a second resultant image 2040 is what a person might perceive. [Col. 16, lines 8-15]*

These passages relate to the so-called "disruption directives" discussed in Appellant's Appeal Brief. As a summary, the "disruption directives" cooperate with a so-called "disruptor." The disrupter uses the disruption directives to disrupt projection <u>by introducing</u> anomalies or modulation <u>in projected film</u>. *See* Col. 5, lines 11-14, Col. 8, lines 52-64 and Figs. 1-6. Thus, the "disruption directives" control or influence the disrupter in introduce separate anomalies in projected film <u>during projection</u>. Hence, disruption directives (or disrupter control information) are not embedded **in** the *first and second* frames in the manner claimed. There is no mention of this at all. Additionally, projected anomalies are introduced during projection, and not prior projection as required by claim 1.

We respectfully request for the final rejection of claim 1 to be reversed since Schuman does not have each and every feature of claim 1.

<u>Claim 2</u>

There is <u>no</u> discussion (or inherency) in Schuman to support the Examiner's Answer's analysis on page 13, last two lines – page 14, line 4, that "intensity" should mean "intensity of repetition". In the context of the cited passage (including Col. 6, lines 17-34) "intensity" is correctly interpreted as "brightness" or "signal strength".

Indeed, there is no discussion (or inherency) of an "intensity of repetition" in Schuman, nor is such a phrase understood to be commonly used in this field.

The final rejection of claim 2 should be reversed since Schuman does not have each and every feature as recited in this claim.

<u>Claim 5</u>

The Examiner's Answer suggests that a camcorder displaying text, which a human then reads, anticipates Claim 5 act of providing device-aided character recognition (e.g., OCR or other device character recognition).

We disagree since a human reading a displayed word (e.g., "SAMPLE") does not involve a device in *device recognition* of the characters as claimed.

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We respectfully request that the final rejection of claim 5 be reversed since Schuman does not include – either expressly or inherently – at least an act of providing device-aided character recognition of the first or second frames to detect the identification data.

Claim 12

The Examiner's Answer now cites to Schuman's Col. 7, line 63- Col. 8, line 2 to meet the features of claim 12 (e.g., *a plurality of identifiers embedded to be spatially located in a separate frame location with respect to each other*).

This is not the case.

The newly cited passage stresses that a location of a disruptive effect may be chosen to direct attention to a central focal point of the content, away from the peripheral. In view of the Schuman specification, we submit that this means each of the disruptive effects would be placed in that central location. It does not imply that the identifiers should be spatially separated in different frames since this would dilute attention from the central focal point.

Claim 23 (and dependent claim 25)

We respectfully refer the Board to our Appeal Brief for reasons why the final rejection of claim 23 should be reversed.

Claims 27 and 37

We **agree** with the Examiner's Answer on page 18, last line – page 19, line 2 that the final rejection of claims 27 and 37 **should be reversed** for at least analogous reasons to those stated above with respect to claim 23. (Based on the Examiner's statement it also appears that the final rejection of claim 23 should be reversed.)

CONCLUSION AND REQUEST FOR REVERSAL

Appellant respectfully requests the Board to reverse the final rejection of the pending claims.

Respectfully submitted,

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